

Education

Ph.D. Computer Science, NC State University Exp: Dec 2015

Research: My research interests are in *game based learning* and *curriculum development & evaluation*.
GPA 4.0

MS. Computer Science, UNC Charlotte Concentration: *Intelligent & Interactive Systems*, 2012

Research: Social game based learning for introductory programming & Social networking games to improve interaction at conferences. (bots.game2learn.com, snagemgame.com)
GPA 3.64

B.S. Computer Science, NC State University *Magna Cum Laude* Minor: *Science Technology & Society*, 2010

Research: Measuring affect in intelligent game based learning environments. Won student research symposium at STARS Conference 2010
GPA 3.56

Project Highlights

Collaborated with NC State History department to design a series of iPad and Kinect games on Lebanese Migration to NC for Natural History Museum

Design & developed a forensics game for Shaw University to promote STEM interest in new freshman class

Worked with UC Berkley and NCVPS to redesign and develop a CS Principles pilot course for secondary Ed.

Worked with STARS on High Hopes Haiti to mentor young women in computing, taught Scratch and OLPC use, and set up donated computers

Lead programmer on team of 4, to develop a web based Scavenger Hunt Detective game, for Discovery Place, a children's museum in Charlotte, NC

Led team of 4 to develop an API for gesture recognition of charts, for SAS, a leader in business analytics

Specialty Courses

- Intelligent Game Based Learning Environments
- Evaluation of Game Design Techniques
- Mobile App Development
- Adv. Game Design & Development
- Artificial Intelligence II
- Graph Theory
- Intelligent Systems
- Educational Data Mining
- Research Design & Quant Methods
- Cognitive Science
- Adv. Educational Psychology
- Software Engineering
- Data Structures & Algorithms

Technologies & Languages

- Java\JavaScript\C#\C++\ActionScript\C
- HTML, CSS, PHP, SQL
- Project Management
- Unity3D \XNA\GameMaker\Kodu
- Eclipse\VisualStudio\FlexBuilder
- Android Development

Research Grants & Awards

- Grace Hopper Conference – Apple Scholarship, \$800 2012
- National Science Foundation Graduate Research Fellowship, \$132,000 2012
- Microsoft Research Graduate Women’s Scholarship, \$17,000 2012
- NCSU Women in Computer Science – GHC Scholarship, \$2,400 2010, 2013
- STARS Alliance Travel Grants ~\$4,600 2009-2013

Research Experience

- **NCSU Center for Educational Informatics**, Raleigh, NC 2012 - Present
Research Assistant, Dr. Tiffany Barnes, Dr. James Lester
- **UNCC Games + Learning Lab**, Charlotte, NC 2010 - 2012
NSF Research Experience for Undergrads, Dr. Tiffany Barnes
- **NCSU IntelliMedia Group**, Raleigh, NC 2009 - 2010
2 NSF Research Experience for Undergrads, Dr. James Lester
- **NCSU Software Engineering & Requirements Lab**, Raleigh, NC 2010
NSF Research Experience for Undergrads, Dr. Laurie Williams

Peer-Reviewed Conference Publications

- Hicks, A., **V. Catete**, T. Barnes. (2014). “Part of the Game: Changing Level Creation To Identify and Filter Low-Quality User-Generated Levels.” *FDG* 2014.
- Catete, V.**, K. Wassell, T. Barnes. (2014). “Use and Development of Entertainment Technologies in After School STEM Program.” *SIGCSE* 2014.
- Powell, E., R. Brinkman, **V. Catete**, T. Barnes. (2012). “Table Tilt: Making Friends Fast.” *FDG* 2012.

Extended Abstracts & Posters

- Olaya, J., D. Hicks, **V. Catete**. (2012). “Teaching Concepts through Educational Games Using Social Aspects Within Peers.” *SIGCSE* 2012
- Sabourin, J. **V Catete**, M Draelos, et al. (2011) “SPARCS Middle School Outreach.” Poster at STARS Celebration 2011, *1st place Outreach Poster*
- Draelos, M., **V. Catete**, O. Estrella et al. (2011). “Digital Logic Lesson Plan for Middle School Outreach.” Poster at STARS Celebration 2011, *2nd place Outreach Poster*
- Catete, V.**, J. Sabourin. (2010). “Examining Facial Expressions of Emotion in Narrative Centered Learning Environments.” Poster at STARS Celebration 2010, *1st place Research Poster*
- Catete, V.**, J. Sabourin. (2010) “Designing & Building a Pressure Sensitive Seat.” Poster at NCSU Poster & Pies SRC
- Catete, V.**, D. Lauck, M. Draelos, S. Lam. (2009). “SPARCS Middle School Outreach.” Poster at STARS Celebration 2009

Presentations & Workshops

- Barnes, T., **V. Catete**, A. Hicks, B. Peddycord III. “Making Games and Apps in Introductory Computer Science.” Workshop at SIGCSE 2014.
- Barnes, T., A. Boyce, **V. Catete**. “Augmenting Introductory Computer Science Classes with GameMaker and Mobile Apps”. Workshop at SIGCSE 2013.

Lodah, S. Y. Chun, **V. Catete**. “TouchDevelop in Teaching”. Panel at TouchDevelop Workshop 2013.

Catete, V., K. Doran. “3rd World Network Administration”. Presentation at STARS Celebration 2012.

Catete, V., A. Watson. “Initiating and Implementing a Successful Outreach Program”. Workshop at STARS Celebration 2012.

Doran, K., **V. Catete**. “Evaluating Your Outreach”. Breakout session at STARS Celebration 2012.

Catete, V. J Situka. “BOTS: Graphical Programming for Beginners”. Presentation at Charlotte REU SRC 2010, *Honorable Mention*.

Teaching Experience

- Teaching Assistant, NCSU, CSC 226 - Discrete Mathematics 2012
Responsibilities include grading and proctoring exams
- Teaching Assistant, UNCC, ITCS 5231 - Adv. Game Design & Dev. 2012
Responsibilities include grading, and giving 2 lectures
- Teaching Assistant, UNCC, ITCS 5236 - Serious Games 2011
Responsibilities include grading, 1 lecture, and mentoring team projects
- Invited Speaker, Weatherstone Elementary, Used robots to teach a class of 1st graders about balance and motion. 2013
- Char-Meck Parks and Recreation Center, Teen Tech Week – Led a summer camp, with 21 students, 3 hours a day, teaching apps & robotics 2012
- UNC-Charlotte, Primary Academy – Led five 2.5 hour workshops for 18 4th graders, teaching them how to create stories/games in Scratch 2012
- Microsoft® DigiGirlz Camp – Led 1 hr. workshops teaching high school girls how to build video games using Game Maker software. 2010 - 2012
- **Students in Programming, Robotics, And Computer Science (SPARCS)** – 2009 - Present
SPARCS is a middle school outreach program aimed at broadening participation in computing. College mentors majoring in computer science run hands-on workshops introducing participants to computing concepts and applications. Sample workshops include, LEGO Mindstorm robotics, and Alice Programming.
 - (2009) Joined the program in its second year as a mentor, created GameMaker workshop. (go.ncsu.edu/stars_sparcs)
 - (2011) Led a team of 13 undergraduates to duplicate the program at 3 new locations (McClintock Middle School (McClintock Family Night), MLK Jr. Middle School (Citizen Schools), and UNC Charlotte (NC Math and Science Education Network - Saturday Academy). (uncslc.starsalliance.org/sparcs)
 - (2012) Created and led iPhone (XCode), Android (AppInventor), Windows Phone (TouchDevelop), and HTML5 web development workshops.
 - (2012) Regional Coordinator of 6 SPARCS programs, which meet either once a week for 1.5 hours, or one Saturday a month for 4-5 hours. There are ~81 students currently enrolled in the program.

Community Engagement & Service

- NCSU Graduate Student Association, Representative 2013
- NCSU Computer Science Graduate Student Association, Vice President 2012-Present

- WICS Women in Computer Science, Member, Consultant 2012-Present
- UNCC Graduate & Professional Student Government, Senator 2011 - 2012
- UNCC College of Computing & Informatics Graduates, Secretary 2011 - 2012
- Students & Technology in Academia, Research, & Service (STARS Corps), Member, Team Lead (2011-), President (2012-) 2009 - Present
- SPARCS Middle School Outreach, Regional Coordinator 2011 - Present
- Association of Computing Machinery, Member 2010 - Present
- Upsilon Pi Epsilon, International Honor Society for Computing & Informatics Disciplines, Member 2010 - Present
- American Legions Jr. Auxiliary, Member 2006 - Present
- Relay4Life (Childhood Cancer Awareness) 2003 - Present

Game Competitions

- Global Game Jam – Orchestrated a 1st time location, collaborated with IGDA chapter to facilitate interaction between industry and students 2013
- Global Game Jam – *Bear Fight: Teddy Edition*. Lead Programmer, team of six. Multiplayer fighter game for girls, teddy bears having a pillow fight. 2012
- Global Game Jam – *Baby Mammoths Journey to Mars*, now available on XBLIG. Level Designer, team of four. Canabalt game. 2011
- Imagine Cup – *Heroine*, Honorable Mention. Lead programmer, team of 4. Made a 2D fighter, featuring iconic historical women like Joan of Arc. 2011